

Mussey (R. D.)
an address on Audent spirit.



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Mussey. (R. D.)

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ADDRESS

ON ADRENT SPIRIT,

READ BEFORE THE

NEW-HAMPSHIRE MEDICAL SOCIETY,

AT THEIR ANNUAL MEETING,

JUNE 5, 1827.

BY R. D. MUSSEY, M. D.

AT THAT TIME PRESIDENT OF THE SOCIETY, AND PROFESSOR
OF ANATOMY AND SURGERY, IN DARTMOUTH COLLEGE.



HANOVER.

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1828.

NEW-HAMPSHIRE MEDICAL SOCIETY.—Voted, that Drs. Matthias Spalding, Thomas P. Hill, and John B. M'Gregory be a committee to wait on Dr. R. D. Mussey and request a copy of his address, this day delivered before the society, or so much of it as would be proper to meet the public eye, for publication at the expense of the Society.

Attest,

M. LONG, Secretary.

Concord, June 5, 1827.

DEAR SIR,

The foregoing is a copy of a vote of the New-Hampshire Medical Society in relation to your address. Hoping that you will comply with the request,

I am yours truly,

For the Committee,

MATTHIAS SPALDING.

REUBEN D. MUSSEY.

June, 1827.

DEAR SIR, The address was not written with a view to publication, but after much delay, and some solicitation from different sources, I have concluded to submit the copy.

Yours sincerely,

R. D. MUSSEY.

June, 1828.

M. SPALDING, M. D.

ADDRESS.

MORE than nine hundred years ago, an Arabian Chemist discovered by distillation, a pungent and warming liquor, to which was given the name of Alkohol, and which we call ardent spirit. This, a modern writer asserts, is the *aqua divina*, or water of the Elysian fields, invented by Democritus, and he maintains that the term alkohol has nearly the same import with *golden liquor*, applied by some of his countrymen to the precious invention of the Greek philosopher. This liquor was brought into Europe at the time of the Moorish conquest, soon came into general favour, and, now exerts an important influence over a great part of the civilized world.

It is the object of the following remarks to examine the claims of this article to the extensive patronage and confidence it has acquired.

When taken in small quantity into the stomach, it diffuses its influence over the whole body; a fresh impulse is given to the living powers, the countenance lights up with pleasure, and the mind acts with new interest and vivacity.

Under the influence of a larger dose of the exhilarating fluid, sensibility and sympathy unfold them-

selves. Tears fall, as a pensive association crosses the mind, or a tale of common suffering is told, the benevolent affections flow out upon all surrounding objects, and the whole world is not too large a sphere for the exercise of the generous sentiments which swell the bosom. The mind disburthened of care, and disregarding the past and the future, sees no impediment to the boldest and most extravagant enterprises; and rioting in the luxury of present existence, scarcely acknowledges a superior in the universe. Here the distinctions of society begin to disappear. The idle and half starved vagrant is transformed into a lord, and surrounded with pomp and plenty; and the miserable outcast, who has tenanted a prison for his crimes, imagines himself on a throne, clothed with power sufficient to direct the destinies of a nation or of the world.

The lover of alkohol sometimes resorts to poetry and song in the expression of his ecstasies, but as the effect of the ethereal liquor deepens, he sings or shouts inarticulate responses to musick or voices which seem to come to him from a distance, but which are occasioned by a violent beating of the arteries of his own brain.

If the corporeal part of man, in this happy condition, be inspected, it presents phenomena which correspond with those of the mind. The whole face is swollen, the forehead and temples patched with red and white, the cheeks of a deep crimson, the nose tipped with ruby, the corners of the mouth drawn down, and the under lip inclining to drop, the eyes blood-shot and glassy, roll upwards under their lids, and the

body and limbs, no longer subjected to the arbitrary control of the will, assume that position which is dictated by the power of gravitation; in a word, the whole man declining farther intercourse with external nature, retires within himself, and heedless of the material creation around him, remains for hours, as if in a trance. If such be some of the effects of alkohol, who can wonder that it has been called golden drink, or that poets have chanted its praises.

This, however, is not all. It possesses, more than any other invention of man, the power of transforming character; but what is worthy of particular notice, is, that all its good transformations are transitory, and nearly all its bad ones, permanent. Does it give momentary strength to the feeble, its habitual use makes the strong man weak. Does it inspire the coward with desperation, it can break down the heart of courage, and reduce the manly spirit to the imbecility of childhood. Does it make the poor man rich in imagination, it makes the rich man poor in reality. If it occasionally excite a flood of sympathetic tears, and unclench the fist of avarice, it relaxes benevolent exertion, and renders the mind habitually less sensible to the sufferings of others.

What permanent influence does it exert upon the social affections and the moral feelings? Was it ever known to increase conjugal attachment and kindness, parental tenderness, or filial love and obedience? Has it ever given a spur to industry, in the farmer, the tradesman, the merchant, or professional man, by urging upon him the claims of a dependant family, or a

suffering friend? Who was ever inspired by alkohol with lofty moral sentiments? Who has felt its influences directing his thoughts reverently upward towards the Author of his being, and prompting him to sincere confession of departure from duty, to submission to his will, and obedience to his commands? On the contrary who has not seen its effects in poisoning the fountains of social and moral feeling, and in transforming the affectionate, kind, and hopefully devout man, into a savage or a brute?

You have seen a youth of fine talents and promise, coming into life encircled with the highest parental hopes and expectations, and making regular and rapid progress towards a sphere of usefulness and respectability. You have seen him betake himself to the bottle; soon the relish for study or business is lost; industry, ambition, character, family reputation, virtuous society, are all unmeaning things; the high considerations they present, he regards not, but wanders about, the associate of idlers and thieves, the butt of vulgar insolence, and the abhorrence of his former virtuous and intellectual companions. His parents weep for him in secret places.

You have seen the man of talents, industry and extensive usefulness, who in the exercise of his vocation, had acquired high public confidence, thrown down, by the magic power of alkohol, from the pinnacle of his elevation, to become the object of popular derision and abuse. Was he a physician, or a lawyer, had he sat in the high seat of public justice, or had his voice been heard in the council of the nation, or had he borne the messages

of grace to guilty men ; you have seen him, barter the luxury of doing good, or grow regardless of the law and of justice, or despise the insignia of office and public confidence, or voluntarily tear off his priestly vestments, and extinguish with his own hand, the flame of that altar, before which he had ministered year after year ; and all this for what ? for distilled spirit : for the privilege of being the companion of fools and drunkards.

What is the secret of this witchery which strong drink exerts over the whole man ? I will try to tell you. After being received into the stomach it is sucked up by absorbent vessels, is carried into the blood, and circulates through the alimentary organs, through the lungs, muscles, and brain, and doubtless through every organ of the body. Not a blood vessel however minute, not a thread of nerve in the whole animal machine escapes its influence. What is the nature of this influence ? It disturbs the functions of life ; it increases for a time, the action of living organs, but lessens the power of that action ; hence the deep depression and collapse which follow preternatural excitement. By habitual use, it renders the living fibre less and less susceptible to the healthy operation of unstimulating food and drink, its exciting influences soon become incorporated with all the living actions of the body, and the diurnal sensations of hunger, thirst, and exhaustion, are strongly associated with the recollection of its exhilarating effects, and thus bring along with them, the resistless desire for its repetition.

Is evidence required of its being absorbed, and pervading the different organs of the body ? Approach

within a few feet of the rum or brandy drinker; and the odour of his breath will quickly demonstrate, that the lungs, loaded with the foul liquor, are discharging it with all the energy in their power.

When taken by the nursing mother, it enters into the delicate food prepared by nature for the nourishment and growth of helpless infancy, and in this way, as may most rationally be supposed, produces a relish for an article naturally disgusting, and lays thus early, in some instances, a foundation for intemperance in after life. What physician has not known a nursing mother give a fretful child a good night's sleep, by taking, herself, a dose of brandy at bed time?

Other organs than those destined for the formation of milk, manifest the presence of this article when it is combined with peculiar odours ; those organs especially, which are set as waste gates to the system, soon show how foreign it is, and ill adapted to the real wants of the animal economy, by separating it from the blood and taking it out of the general circulation as fast as possible.

The brain, that most delicate and wonderful organ, which forms the mysterious link between the other forms of matter and mind, the healthy functions of which are essential to vigorous intellectual operation, is capable of imbibing alkohol, and having all its actions suddenly arrested. In point, is the case of the man who was picked up dead in London, soon after having drank a quart of gin upon a wager. He was carried into the Westminster hospital and there dissected. "In the ventricles of the brain was found a considerable quantity of limpid fluid, distinctly im-

pregnated with gin, both to the sense of smell and taste, and even to the test of inflammability. The liquid appeared, to the senses of the examining students, as strong as one third gin to two thirds water."*

We know that alkohol, even when diluted, by long contact after death, hardens the brain, as well as the other soft textures of the body which contain albumen; and although the vital principle may enable the brain to resist in a great measure, and for a long time, this effect of alkohol, when brought into it from the stomach by the general circulation, the fact, as alleged by many, and as I am strongly induced to believe from the limited means I have had of observing, viz. that the brains of drunkards are literally harder at death, than those of the temperate, may be considered in strict accordance with the effects of intemperance upon the intellectual functions. If this organ be in any degree hardened by the circulation of diluted alkohol through its minute and most delicately organized parts, it might well be supposed to be less susceptible of those exquisitely balanced actions, which we can hardly help believing do exist in the impressions made by external objects, and in the variety of combinations of them, produced by the more abstract, and retired operations of the mind. That a large proportion of tiplers early discover an unnatural obtuseness of intellect, and that frequently a mind originally quick and vigorous, becomes sluggish and imbecile, need not be told to an assembly of physicians who have had the common opportunities of observing the effects of intemperance.

* Cooke on Nervous Diseases, P. 104. Boston. Edit. 1824.

The stomach and liver of drunkards are generally found to be disordered; the stomach frequently contracted, and the liver much harder than natural, exhibiting an unnatural colour both upon its surface, and throughout its interior texture. This, perhaps, is what might be expected. The stomach receives the liquor, in the most concentrated and active form, in which it is taken into the body. From the stomach and the alimentary canal below, most, if not all of it, is probably carried through the liver in a state less dilute than when distributed among the remaining organs of the body. The texture of the liver too, which consists merely of vessels and nerves with enough cellular membrane to hold them together, may perhaps serve to show why it is more obviously affected than the alimentary canal, inasmuch as this canal has a distinct, and in some places, a thick muscular coat, independently of its vessels. The skin of the inebriate is always more or less affected. Its fair colour soon fades under the withering influence of ardent spirit; and from being smooth, soft, and elastic, it becomes uneven, wrinkled and flabby, if the subject be somewhat advanced in life; or if young, the skin of the face is bloated, uneven and frequently purple, and very often in middle life and after, a large crop of red pimples is the only ornament the face exhibits.

The eye, that window of the mind, loses its pearly whiteness, its sparkling transparency, its quick and significant motions, and becomes dim, sluggish and unmeaning.

The various phenomena exhibited in the different stages of alkoholick influence, including its immediate

and more permanent effects, and modified by age and constitutional temperament, would occupy more time in the enumeration, than can be spared on the present occasion. The case of him who has made free with his cups, till they have produced the following train of symptoms, is not unfrequently submitted to the consideration of a physician. The forehead and cheeks are swollen, pale and slightly tinged with yellow, the lips leaden coloured or pale, the eye yellow, dim and vacant, the lower eyelid loose and hanging, the upper lid several times its natural thickness, diaphanous and drooping, the body twice its natural circumference, the limbs tottering and swollen, the breath insupportably fetid, respiration difficult and wheezing, accompanied with a short dry cough. "Throw medicine to the dogs" in such a case.

The bodies of some few drinkers have been so thoroughly steeped in spirit, as literally to take fire and consume to ashes. It is said that no case of this spontaneous combustion has ever occurred, except among hard drinkers, and it is altogether probable that in every such case, an inflammable air has exhaled from the lungs or skin, or both, and has been kindled by the too near approach of a lighted taper, or some ignited substance. A French chemist, it is said, after drinking a pint of ether during the day, used to amuse himself at evening, by lighting up his breath, directed in a very small stream upon the flame of a lamp. Alkohol taken in large quantities, would probably, in some constitutions at least, occasion a similar vapour to be thrown from the lungs; and there is, doubtless more danger than has been imagined, in a deep drink-

er's bringing his mouth or nose close to a lighted taper at evening.

The numerous and weighty considerations, some of which have been hinted at, and which a reflecting man must surmount, before he can make up his mind to be regarded as a drunkard, place in a striking view the strength of the appetite, which is created by a long and habitual use of spirit. Instances might be referred to, which set this in a painfully strong light.

A few years ago, a tippler was put into an alms-house in a populous town, in Massachusetts. Within a few days, he had devised various expedients to procure rum, but failed. At length however, he hit upon one which proved successful. He went into the wood-yard of the establishment, placed his hand upon a block, and with an axe in the other, struck it off at a single blow. With the stump raised and streaming, he ran into the house, crying "get some rum, get some rum, my hand is off." In the confusion and bustle of the occasion, a bowl of rum was brought, into which he plunged the bleeding member of his body, then raising the bowl to his mouth, drank freely and exultingly exclaimed, "now I am satisfied."

In another populous town in the same state there lived an habitual drinker, who in an interval of reflection, made a vow that he would drink no more spirit for forty years, not doubting at the time, that forty years would place him in his grave. He faithfully kept his vow, and at the expiration of the stipulated period, ventured to take a little liquor, as it seemed no more

than a friendly salutation given to an old acquaintance, and in no very long time died a sot.

I once knew a man, who had been for some time, in the habit of intemperate drinking, and who had, at times, strong remonstrances of conscience. These admonitions, together with the motives and encouragements held up to him by his kind and good wife, induced him to make a solemn vow, "that by the help of God, he would never again drink any thing stronger than beer, unless prescribed for him as a medicine by a physician." He regarded the vow, became sober and apparently religious, and for several years sustained the character of a devout man. At length he lost, by degrees, his religious sensibility, grew dull and stupid, heedless alike of religious duty, and of the daily attentions to business necessary for the support of his family, and eventually died besotted with rum. When warned of his danger, soon after it was known that he had returned to his cups, he assigned as a reason, the prescription of a physician, which was made on his application for relief from mild dyspepsia.

If such be the strength of the habit, and so great the danger of forming it, what apology is there for drinking spirit at all? Does a healthy labouring man need alkohol? No more than he needs arsenic, corrosive sublimate, or opium. The experiment has been made a thousand times, and the result is well known, namely, that more labour can be accomplished in a month or a year, under the influence of simple nourishing food and unstimulating drink, than through the aid of alkohol.* Does the warrior need this stimulus

* Vide note B,

to inspirit him for the conflict; M'Donough has shown with what cool and appalling bravery men can fight without it, and a faithful history of our army and navy would demonstrate, that the use of it affords no security against defeat or disaster.

If ardent spirit be necessary to health and activity, how did the world get along without it for forty eight hundred years? How could the Roman soldiery withstand the frightful onsets of Hannibal, with nothing to drink, stronger than vinegar and water? Take a soldier of the present day, clothe him with heavy Roman armour, and give him the pilum* and short sword, weapons which, it has been said, ‘conquered the world;’ and it will soon appear what blessings we have derived from alkohol. The modern Achilles cripples under his load, unable to raise from the ground the instrument with which he is to meet his foe.

“But alkohol is certainly useful as a medicine, and it may be resorted to as an antidote to infectious diseases.” If it be a good medicine, let it be used only as a medicine. What has a healthy man to do with medicine? Let it be kept only on the shelves of the apothecary. But how does it appear that spirit affords security under exposure to contagion? The history of certain epidemicks will show, that they destroy a larger proportion of tipplers, than of those who are temperate. Two physicians of my acquaintance were called to practice in the same epidemick scarlet fever. One drank spirit freely, the other not at all; they were equally exposed to the contagion, and both took the

* Vide note C.

disease. The drinker died, the other recovered. If you are exposed to the infectious air of sick rooms, take plain nourishing food at regular intervals, and unstimulating drinks.

“But if useless as a preventive, is not alkohol important in the treatment of disease?” I admit that it is sometimes convenient, but I deny that it is essential to the practice of physic or surgery. Do we wish to rekindle the taper of life as it glimmers in a fainting fit, we have ammonia and the volatile oils, and what is better than every thing else, cold water, to be administered by affusion. Is it required to produce a tonick effect in a case of long standing debility, the tonick roots, and barks, and woods, impart their invigorating properties to water or acid. Are we called upon to relieve pain, opium is altogether superior to alkohol. Do we need a solvent for opium, we have it in the acetous acid. The black drop is one of the best solutions of opium ever invented.

“But what is to be done with the medicinal resins and aromatick oils, must not they be dissolved in alkohol?” The medicinal resins do not constitute a very important class of remedies, but they may be given in fine powder, rubbed with some inert friable substance, or dissolved in an essential oil, or made into an emulsion. The ordinary mode of using them does not carry them into the stomach in the state of solution, as they are instantly precipitated in a flocculent form on being thrown into water. As for the aromatick oils, they may be given in the form of liquid soap, or emulsion rubbed with alkali, or sugar and water, and in this way they exert their specifick effects.

Is the physician required to prescribe a restorative ; if quinine and bark, and bitters, and metallick tonics will not do, shall he prescribe alkohol ? This is never certain and always unsafe, inasmuch as there is imminent danger of a permanent relish being acquired for it; nor does it compare, in its restorative powers, in cases where the complaint was not produced or modified by the previous use of it, with the pure fermented and well-preserved juices of the grape and the apple. The factitious wines extensively vended in our country, are poor restoratives ; they contain a large proportion of alkohol.

I maintain then, that, taking into view the danger of making tipplers by giving ardent spirit to the sick, and considering that all its medicinal virtues are found in other articles, mankind would not on the whole be losers, if it should be banished not only from the houses of every class in the community, but also from the shops of the apothecary.

There can be little doubt of the correctness of the prevailing opinion, that the consumption of ardent spirit has been, for a few years past, an alarmingly increasing evil in our country.

By the marshal's returns in 1810, it appeared that no less than thirty three millions three hundred sixty five thousand five hundred and twenty nine gallons of spirit were distilled, and imported for a single year's consumption in the United States ; and there is little doubt that this estimate is far short of the truth, as there is, probably, every year, a considerable quantity smuggled into the country, of which of course no account is given. If from that time, the consumption

of ardent spirit has only kept pace with the population, it will amount to fifty six millions of gallons ; but from the increase in the consumption, says a distinguished gentleman of our state, in an elaborate calculation, from which the following results are taken, ‘we may safely set it down at sixty millions. This will give to every individual, man woman and child, including bond and free, five gallons each. Deducting the slaves and children under ten years of age, it will give to the rest not less than eight gallons each.’ Is this result impossible, must there be an error in the calculation ? The common seamen of our navy are allowed a daily ration of half a pint of spirit each. This is about twenty three gallons a year, and when it is considered that hundreds of thousands of our citizens drink twice, thrice or even four times this quantity, the foregoing result will not appear improbable.

‘ Sixty millions of gallons, taking into the estimate the quantity of home distilled spirits disguised and sold for foreign liquors, the free dilution of home and imported liquors before they reach the consumer, and the large proportion retailed in small quantities at a price greatly in advance of the primary cost, may be fairly reckoned at about one dollar the gallon, but to be within bounds place it at fifty million dollars. If to the actual cost of ardent spirits, we add the loss of time, the waste of property, the various expenses of sickness and law-suits occasioned by their use, and the amount expended in the support of paupers reduced to indigence by intemperance, to what an enormous sum will the whole amount ? *One hundred millions of dollars* is probably far short of the truth.’ Let half this sum be an-

nually levied upon the people in the form of a direct tax, and insurrection and revolt would appear in every part of our country.

From calculations made by the gentleman before alluded to, in which I have great confidence, but which are too long to be admitted here, it appears in the highest degree probable, that, from twenty thousand to thirty thousand persons in the United States, are annually brought to a premature death through the influence of ardent spirit. Place the number at twenty five thousand.*

One hundred millions of dollars, divided among the different states according to their population, would give to New-Hampshire, about two millions five hundred thousand dollars. Apply this sum to the support of government, of the clergy, and of schools; improve the means of education by the establishment of any reasonable number of high schools, and the most extensive endowment of the college; make a hundred new publick roads; cut canals, and build railways in every useful direction; smooth down the rugged features of the state, by giving the most liberal encouragements to agriculture; build up manufacturing establishments; cherish the useful and the fine arts by large premiums and salaries; endow a hospital in each county, and distribute unheard of sums among the numerous and charitable objects of the day; send a hundred missionaries to India, and as many to our western wilderness; and in ten years our treasury would groan under the burden of unappropriated monies.

* More recent estimates by other gentlemen, from larger data, fix the number at thirty thousand.

Twenty-five thousand lives in our country in one year ! This number multiplied by the time that has elapsed since the last peace with Great Britain, will give three hundred thousand, a larger number than met in 1812, on the bloody plains spread out before the ancient city of the Czars. Apply this calculation to the population of Europe, and you have three hundred and seventy five thousand annually, or four millions one hundred and twenty five thousand in eleven years, the time since the peace in 1816; a number nearly equal to that swallowed up by that vortex of human life, the French revolution, and its consequent wars.

How can any thing be done effectually to check this mighty evil ? I give the same answer to this question which has repeatedly been given within the last few months ; change public opinion, make it unpopular, unfashionable to drink spirit. What is the use of applying to Government for a tax upon ardent spirit so large as to place it beyond the reach of the lower classes in the community ? Legislative enactments which far outrun public opinion, are worth nothing. Fashion, and custom hold men with a stronger arm than Legislative prescription. But how change publick opinion, it is not already an overwhelming torrent rolling onward with resistless and increasing power ? Man can accomplish wonders both in the physical and moral world, he dares even meditate a canal across the isthmus of Darien, expecting to lower the waters in the gulph of Mexico, and perhaps to stop the gulph stream ; and who that recollects the mighty moral achievements accomplished in the time of the reformation by the efforts

of a single man, shall despond at the vastness of the change now contemplated ?

Let all good men, all well wishers to social life and family quiet; to health, industry and the arts ; to religion, morals and good government, unite their efforts ; and by all possible means, but chiefly by their example, in rigidly abstaining from ardent spirit, discourage and discountenance its use, among all within the sphere of their influence.

‘ I know, says some worthy man, ‘ that the evil of spirit drinking is a great one, and I heartily wish we were rid of it ; but I have been in the habit of taking it occasionally for some years, and I find it at times particularly comfortable to me, and as I am in no danger of becoming intemperate, must I give it up only for the benefit of others ? ’ You take it frequently and are fond of it ; are you then in no danger ? Unconsciousness of danger is no proof of security. There may be some reason for your leaving it off on your own account, but if not, have you not so much regard for your family and the community as to submit to a slight temporary inconvenience on their account ? Why talk one way and act the other ? Your influence is on the side of conduct, not merely of words. What would be said of the physician who should refuse to submit to the processes of cleansing necessary to rid his clothes of the infection of small pox, because it would cost him a little time or trouble or other inconvenience ; while by thus disregarding the regulations instituted for the preservation of the publick health, he would expose his family and his neighbours to the pestilence ; and whose sons are more liable to

become drinkers of ardent spirit than the sons of him who sets them the example ?

But the glorious work of reform has been commenced, and is now in rapid progress. Within the last half year, societies for the promotion of this object have sprung into existence, like flowers upon the bosom of spring after a long and cold winter ; may an abundance of fruit follow these vigorous forth puttings of moral effort.

I repeat it, let all virtuous men unite to expel the common enemy. He ought not to be allowed a place in Christian society. He is a foreigner, a Mahometan, he was born in the land of robbers, and he has established the genuineness of his origin by the millions he has deprived of property, of morals, and of life. He has come to us in the robe of friendship, has assured us of his best regards, has proffered his aid and solace in sickness, pain, and poverty. Such a friend, who could reject ? he has been received into general favour, and admitted to christian confidence and companionship ; and what reward has he taken for his kind offices ? He has stolen away character, health, property, the rich blessings and endearments of society and domestick intercourse, the moral sense, life, and the hope of heaven.

Gird up then to the combat. Always meet him as an enemy ; never again admit him to your bosoms ; give him no quarter ; expel him from your houses ; drive him from the land. Always treat him as a murderer ; he has slain your brothers, he lurks for the life blood of your children, he whets his sabre for you.

Farmer, Mechanick, Professional man, Orator, hast

thou sought from ardent spirit strength to labour, or ingenuity or promptness in thy calling, or eloquence in the hall of legislation or justice ; it will palsy thine arm, cause thy right hand to forget its cunning, and thy tongue to cleave to thy mouth.

Christian, what hast thou to expect from strong drink? art thou weary, and dost thou linger on thine upward journey ; and will ardent spirit bring thee sooner or safer to thine home ?

Dost thou wait in the sanctuary, has thou been separated to stand before the congregation ; and when thy graces languish, when thy devotion burns feebly and faintly, dost thou rekindle it with alkohol ? Ah ! come not near ; bring no more this strange fire to the altar, lest, from its secret and holy dwelling, a flame brake forth upon thee, and thou be consumed, and the people with thee.

NOTES.

A.—Refer to Page 11. As Alkohol is strongly allied to ether in its chemical relations, and as it is capable of passing from the stomach into other organs without having its inflammability destroyed, as in the case mentioned in the 8th and 9th pages, where diluted gin was found in the brain, the wonder, perhaps is, that instances of spontaneous human combustion should so rarely have occurred. Plouquet mentions twenty-eight cases.

B. It is very generally understood that the human constitution can endure intense cold under the influence of water as an article of drink, longer than under that of ardent spirit. In proof of this, numerous striking facts might be referred to, but it is unnecessary. It may not be so generally known, that great exposure to heat does not require the use of ardent spirit.

From a commercial friend in Massachusetts, I have lately received the following information. "I visited," says he, "four or five years since, in New-Jersey, an iron foundry belonging to Mr. Wood, of Philadelphia; I think there were thirty or forty men employed in the establishment, and all they drank was pure spring water. I saw them often while lading out the hot metal and sweating at every pore, take a mug, run to the spring, and drink very freely of the water. I inquired if they did not feel any ill effects from drinking so much cold water; they answered, *no!* The furnace went into blast in April and continued till October; all those employed had the best of health during the whole season, and returned to their friends in the Autumn with better health, and fuller purses than they ever had before.

"A vessel belonging to my neighbour, went from this place to South America, and from thence to India; no spirit was allowed to

the crew during the whole voyage ; they all arrived home in good health. One of my own Captains kept grog from his men, the whole of an India voyage ; they all came home in fine health.—For my crews in hot climates, I direct spruce beer, made with the oil or essence of spruce, and molasses and water. I shipped two crews last week for long voyages in hot climates, and named to the men that we should not allow them grog ; there was not a single objection made to signing the shipping papers. It is in the power of every ship owner to prevent the use of ardent spirit on board his vessels, by sending out a few barrels of molasses, and a few dozen bottles of the essence of spruce, for beer."

To the foregoing suggestion, it may be proper to add, that, for labouring men in hot weather, sweetened water, sometimes with the addition of ginger, is a most salutary drink ; so also is a mixture of milk and water.

The principle of life is afforded to every individual in such quantity, or in such manner, as to admit of the living actions being carried on, under the most favorable circumstances, only for a limited period ; and as no human power or skill can increase this principle one jot or tittle, so neither, can the actions of life be urged beyond the standard of sound health, (leaving casualties out of the question) without necessarily shortening it. And this shortening of life will be for minutes or months, or years, according to the degree and continuance of the excitement beyond the natural and uniform rate of healthy action.

This vital principle has been likened, not altogether inaptly, to oil in a lamp, which is capable of sustaining flame, only for a certain length of time. If the wick be raised higher than necessary to produce a full and clear light, a part of the oil goes off in smoke and the whole is sooner consumed.

C.—‘The pilum was a missive weapon, which the Romans soldiers, in charge, darted upon the enemy. It was a bar of wood, about four feet eight or ten inches long, with a slip of iron the same length, hooked and jagged at the end. Each soldier had two of them.’





